AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended) In a printing environment having equipment for processing print jobs, a method, comprising the steps of:

receiving a selected print job;

dividing the selected print job into batches, where a size of each of the batches is selected to substantially optimize a time period it takes for the selected print job to be fully processed;

to determine the total production time T_{prod}, which includes the time taken to process the first batch followed by the time to process the subsequent batches, use the following equation, [[(]]where r_i represents the processing time of each operation per production item, i represents the number of the operation in sequence, r_1 represents the time it takes to print a single copy of the document, h_i represents the inter-batch handling time, S_i represents the setup time for each operation, and N represents the number of production items in the print job[[)]]]:

$$T_{prod} = \sum_{i=1}^{i=n}[br_i + h_i] + S_1 + [\max(br_1 + h_i)](\frac{N}{b} - 1)\text{ ; and}$$

processing the batches separately and concurrently to complete processing of the print job.

Claim 2 (previously presented) The method of claim 1, wherein the size of each of the batches is based at least in part on the time it takes for the equipment to fully process each batch;

to determine the optimal batch size, use the following equation:

$$b = \sqrt{\frac{\max_i(h_i)N}{\sum_{i=1}^{n} r_i - \max_i(r_i)}}\text{ .}$$

Claim 3 (previously presented) The method of claim 1, wherein the size of each of the batches is based at least in part on the time it takes for the printing environment to switch from processing a first batch to processing a second batch for each operation that is required to complete the processing of the print job.

Claim 4 (previously presented) The method of claim 1, wherein the batches of the selected print job are all processed by a same group of the equipment in a serial sequence of operations.

Claim 5 (original) The method of claim 1, wherein the size of each of the batches is chosen to fully optimize the time period it takes the selected print job to be fully processed.

Claim 6 (canceled).

Claim 7 (original) The method of claim 1, wherein the selected print job entails at least one assembly where documents from multiple sources are assembled into a single entity.

Claim 8 (currently amended) A medium for storing instructions for performing a method in a printing environment having equipment for processing print jobs, comprising the steps of:

receiving a selected print job;

dividing the selected print job into batches, where a size of each of the batches is selected to substantially optimize a time period it takes for the selected print job to be fully processed, wherein the size of each of the batches is based at least in part on the time it takes for the printing environment to switch from processing a first batch to processing a second batch for each operation that is required to complete the processing of the print job; and

processing the batches separately and concurrently to complete processing of the print job, wherein each batch is processed by a subset of the equipment.

Claim 9 (currently amended) The ~~medium~~ method of claim 8, wherein the size of each of the batches is based at least in part on the time it takes for the equipment to fully process each batch;

whereby to determine the optimal batch size, the following equation is employed:

$$b = \sqrt{\frac{\max_i(h_i)N}{\sum_{i=1}^{n} r_i - \max_i(r_i)}} \ .$$

Claim 10 (canceled).

Claim 11 (original) The medium of claim 8, wherein the subsets of each equipment that process the batches are mutually exclusive.

Claim 12 (original) The medium of claim 8, wherein the size of each of